#### Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

## 1. (Original)

A method for deuteration of a compound represented by the general formula [1]:

$$R^{1}-X-R^{2}$$
 [1]

wherein, R<sup>1</sup> represents an alkyl group or an aralkyl group, which may have a carbon-carbon double bond and/or triple bond; R<sup>2</sup> represents an alkyl group which may have a carbon-carbon double bond and/or triple bond, an aryl group, an aralkyl group, an alkoxy group, an aryloxy group or a hydroxyl group; X represents a carbonyl group or a hydroxylmethylene group; R<sup>1</sup> and R<sup>2</sup> may form an alicyclic ring together with a carbon atom contained in X; provided that R<sup>2</sup> represents an alkyl group which may have a carbon-carbon double bond and/or triple bond, an aryl group or an aralkyl group when X is a hydroxylmethylene group,

comprising reacting the compound represented by the general formula [1] with a heavy hydrogen source in the co-presence of an activated catalyst selected from a palladium catalyst, a platinum catalyst, a rhodium catalyst, a ruthenium catalyst, a nickel catalyst and a cobalt catalyst.

# 2. (Original)

The method for deuteration according to claim 1, wherein X is a carbonyl group in the general formula [1].

#### 3. (Original)

The method for deuteration according to claim 1, wherein X is a hydroxymethylene group in the general formula [1].

#### 4. (Currently amended)

The method for deuteration according to any one of claims 1 to 3, wherein the heavy hydrogen source is a deuterated solvent.

#### 5. (Original)

The method for deuteration according to claim 4, wherein the deuterated solvent is deuterium oxide  $(D_2O)$ .

#### 6. (Currently amended)

The method for deuteration according to any one of claims 1 to 5, wherein the activated catalyst selected from a palladium catalyst, a platinum catalyst, a rhodium catalyst, a ruthenium catalyst, a nickel catalyst and a cobalt catalyst is one obtained by activating a non-activated catalyst selected from a palladium catalyst, a platinum catalyst, a rhodium catalyst, a ruthenium catalyst, a nickel catalyst and a cobalt catalyst by contacting with hydrogen gas or heavy hydrogen gas.

# 7. (Original)

The method for deuteration according to claim 6, wherein the contact of a non-activated catalyst selected from a palladium catalyst, a platinum catalyst, a rhodium catalyst, a ruthenium catalyst, a nickel catalyst and a cobalt catalyst with hydrogen gas or heavy hydrogen gas is conducted in a deuteration reaction system.

### 8. (Currently amended)

The method for deuteration according to any one of claims 1 to 7, wherein the activated catalyst selected from a palladium catalyst, a platinum catalyst, a rhodium catalyst, a ruthenium catalyst, a nickel catalyst and a cobalt catalyst is a catalyst comprising an activated palladium based catalyst.

#### 9. (Original)

The method for deuteration according to claim 8, wherein the activated palladium based catalyst is an activated palladium carbon.

# 10. (Original)

The method for deuteration according to claim 8, wherein the catalyst comprising an activated palladium based catalyst is a catalyst comprising an activated palladium catalyst and an activated platinum catalyst.

# 11. (Original)

The method for deuteration according to claim 1, wherein the compound represented by the general formula [1] is tricyclo[5.2.1.0<sup>2,6</sup>]decan-8-ol, and the activated catalyst selected from a palladium catalyst, a platinum catalyst, a rhodium catalyst, a ruthenium catalyst, a nickel catalyst and a cobalt catalyst is a catalyst comprising palladium carbon and platinum carbon.

## 12. (Original)

Tricyclo[5.2.1.0<sup>2,6</sup>]decan-8-ol wherein deuteration ratio thereof is 60% or more.